UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte ASGEIR SAEBO, and CARL SKARIE

Appeal No. 2005-1578
Application No. 09/132,593

ON BRIEF

Before WILLIAM F. SMITH, ADAMS, and GRIMES, Administrative Patent Judges.

ADAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-6 and 8, which are all the claims pending in the application.

Claim 1 is illustrative of the subject matter on appeal and is reproduced below:

1. A food product comprising conjugated linoleic acid alkyl esters in a biologically active concentration, said alkyl esters comprising less than about two percent trans,trans; 8,10 and 11,13 octadecadienoic acid isomers.

The references relied upon by the examiner are:

Baltes et al. (Baltes)	3,162,658	Dec. 22, 1964

Cook et al. (Cook)	5,554,646	Sep. 10, 1996
Cain et al. (Cain)	WO 97/18320	May 22, 1997

Chin et al. (Chin), "Dietary Sources of Conjugated Dienoic Isomers of Linoleic Acid, a Newly Recognized Class of Anticarcinogens," J. Food Composition And Analysis, Vol. 5, pp. 185-197 (1992)

GROUND OF REJECTION

Claims 1-6 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Cook, Cain, Chin and Baltes.

We reverse.

DISCUSSION

According to the examiner (Answer, page 3), Cook "teach an active form of conjugated linoleic acid, i.e., 10,12-octadecadienoic acid and 9,11-octadecadienoic acid, which includes esters, salts and free acids of conjugated linoleic acid." In addition, the examiner finds (Answer, page 4), Cook teach that "[t]he conjugated linoleic acid may be obtained through isomerization of safflower oil;" "a food product comprising said active form of conjugated linoleic acid;" and that "[c]9, t11- and t10, c12-isomer[s] are the predominantly major isomers of the conjugated linoleic acid active form...." According to the examiner Cook do not teach 8,10- and 11,13-octadecadienoic acid isomers. Id. Therefore, the examiner reasons (id.), since Cook does not mention the 8,10- and 11,13-octadecadienoic acid isomers they must not be present and therefore, Cook meets appellants' claimed requirement of less than 2 percent 8,10- and 11,13-octadecadienoic acid isomers.

Regarding Chin and Cain, the examiner finds (id.), Chin "teach that it is known that c9;t11-conjugated linoleic acid isomer is an active form of conjugated linoleic acid," and that Cain "teaches a CLA [(conjugated linoleic acid)] composition made from sunflower oil for food additive contains 48.9% of c9, t11, 51.1% of t10,c12 linoleic acid or their esters."

Based on this evidence the examiner concludes (Answer, page 5),

> it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed ... invention was made, to make a conjugated linoleic alkyl ester mixture from sunflower oil or safflower oil comprising c9, t11- and t10, c12-octadecadienoic moieties without/or with less than 2% of 8,10- and 1,13-octadecadienoic ester, such as those disclosed by Cain et al., and employ the mixture in food products.

In response, appellants argue (Brief, page 6), the Sæbo Declaration establishes that the compositions of Cook and Cain "cannot produce alkyl esters comprising less than about two percent trans,trans; 8,10 and 11,13 octadecadienoic acid isomers." According to the Sæbo Declaration (received December 9, 2004), repeat experiments were performed using the methodology described in Cook and Cain. For Cook, the Sæbo Declaration reports (paragraph 4),

> this conjugation method resulted in in [sic] a conjugated linoleic acid composition comprising approximately 1.58% c11,t13 CLA and 2.34% t9,t11 and t10,t12 CLA. The t8,c10 isomer co-elutes with the c9,t11 isomers, but almost always occurs in a one to one proportion to the c11,t13 isomer.

Accordingly, the trans,trans isomers resulting from Cook's conjugation method are outside the requirements of appellants' claimed invention, which requires, inter alia, less than two percent trans, trans isomers.

Regarding Cain, the Sæbo Declaration reports (paragraph 6)

> this conjugation method resulted in a conjugated linoleic acid composition comprising approximately 3.49% c11,t13 CLA and 2.24% t9,t11 and t10,t12 CLA. The t8,c10 isomer co-elutes with the c9,t11 isomers, but almost always occurs in a one to one proportion to the c11,t13 isomer.

Accordingly, the trans,trans isomers resulting from Cain's conjugation method are outside the requirements of appellants' claimed invention, which requires, inter alia, less than two percent trans, trans isomers.

In response, the examiner asserts (Answer, page 6), "the declaration fails to establish the fact that the conjugated linoleic acid disclosed by Cook or Cain as recited in the prior office action contains more than 2% of the isomers identified in claim 1 herein." In support of this assertion, the examiner finds (Answer, bridging paragraph, pages 6-7), while Cain acknowledges the existence of trans,trans isomers, Cain "do not disclose the presence of trans isomers in their CLA composition." Apparently, the examiner is of the opinion that since Cain and Cook do not specifically state that their CLA compositions contain isomers other than t10,c12- and c9,t11-octadecadienoic acid, the CLA compositions taught by Cain and Cook only contain t10,c12- and c9,t11-octadecadienoic acid. We are not persuaded by the examiner's assertion.

According to Cook (column 1, lines 65 to column 2, line 3);

> [I]n one preferred embodiment of the method of the present invention the safe and effective amount of conjugated linoleic acid, which is selected from 9,11-octadecadienoic acid; 10,12-octadecadienoic acid; mixtures thereof; and non-toxic salts thereof is added to the feed of an animal in which it is desired to reduce the body fat.

We note, however, that according to Cook (column 4, lines 22-24, emphasis added), "[t]he terms 'conjugated linoleic acids' and 'CLA' as used herein are intended to include 9,11-octadecadienoic acid, [and] 10,12-octadecadienoic acid...." Thus, while Cook emphasizes the 9,11- and 10,12-octadecadienoic acid isomers, Cook leaves his definition of CLA open to "include" other isomers. In addition, Cook does not distinguish which geometric isomer is intended by the recitation of 9,11-octadecadienoic acid and 10,12-octadecadienoic acid. In this regard, we note that there is no requirement in Cook's claims that a particular CLA, let alone a particular geometric isomer of 9,11- or 10,12-octadecadienoic acid is required. Further, while the examiner recognizes (Answer, page 4), Cook discloses that "[c]9,t11- and t10,c12-isomer[s] are the predominantly major isomers of the conjugated linoleic acid...", the examiner fails to appreciate that Cook discloses (column 4, lines 48-50), "8 possible geometric isomers of 9,11 and 10,12-octadecadienoic acid (c9,c11; c9,t11; t9,c11; t9,t11; c10,c12; c10,t12; t10,c12 and t10,t12)...", all of which fall within Cook's definition of CLA. Accordingly, we fail to understand how the examiner has read Cook's disclosure as limited to a composition containing only the c9,t11- and t10,c12-isomers of octadecadienoic acid.

According to Cook (column 4, lines 28-29), "[t]he preferred method of synthesizing CLA is that described in Example 1", which appears in Column 2 of Cook. According to the Sæbo Declaration, in the repeat of Cook, "the conjugation conditions were the same as those described in [c]olumn 2 of ... [Cook]." The results reported in the Sæbo Declaration are consistent with Cook in that a CLA composition was obtained that included the 9,11 and 10,12 isomers of octadecadienoic acid. Cf. Cook, column 4, lines 22-24, emphasis added), "[t]he terms 'conjugated linoleic acids' and 'CLA' as used herein are intended to include 9,11-octadecadienoic acid, [and] 10,12-octadecadienoic acid...." While the results reported in the Sæbo Declaration are consistent with the disclosure of Cook, they are inconsistent with the requirements of appellants' claimed invention, because they include more than 2% of the trans,trans octadecadienoic acid isomer. Specifically, the resulting CLA composition contains, inter alia, 2.34% t9,t11 and t10,t12 CLA. For the foregoing reasons we are not persuaded by the examiner's assertions regarding Cook.

Regarding Cain, the reference discloses (page 3), "our invention concerns a new process for the preparation of CLA's, wherein the ratio $\frac{\text{cis}^{9}\text{-trans}^{11}}{\text{trans}^{10}\text{-cis}^{12}}$ can be chosen freely." Therefore, contrary to the examiner's assertion (Answer, page 7), it is not unreasonable for Cain to not report on the presence of other isomers in his CLA compositions, isomers other than $\text{cis}^{9}\text{-trans}^{11}$ and $\text{trans}^{10}\text{-cis}^{12}$ were simply not the focus of his invention. Cf. Sæbo Declaration, paragraph 7, "Cain may have simply chosen not to include non-

active isomers when reporting their results." In this regard, we note that Cain state (page 5), "our invention also concerns novel organic materials, ... wherein the conjugated polyunsaturated fatty acid moieties at least comprise two isomers L_1 and L_2 ...." According to Cain (id.), "is it preferred that L_1 and L_2 are cis[9] trans[11] and trans[10] cis[12]-linoleic acid (or vice versa)[.]" See also, for example, claims 1, 6 and 9 of Cain, wherein similar language is used.

Therefore, similar to the facts in Cook, while Cain emphasizes the cis[9] trans[11] and trans[10] cis[12] isomers, Cain's compositions may comprise other CLA isomers. Accordingly, we see nothing inconsistent with the results of the repeat of Cain's methodology as presented in the Sæbo Declaration. Paragraph 6 of the Sæbo Declaration, and the results attached at Tab 2 of the Declaration, reports that Cains' methodology results in a composition comprising at least two isomers, the cis[9] trans[11] and trans[10] cis[12] isomers. The results also demonstrate however, that other isomers are also present in the resulting composition. Specifically, the resulting CLA composition contains, inter alia, 2.24% t9,t11 and t10,t12 CLA. For the foregoing reasons we are not persuaded by the examiner's assertions regarding Cain.

On reflection, we disagree with the examiner's conclusion (Answer, page 5), that it would have been prima facie obvious to a person of ordinary skill in the art, at the time the invention was made to combine the teachings of Cain, Cook and Chin[1] in the manner necessary to arrive at appellants' claimed invention.

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[1] In our opinion, the examiner's reliance (Answer, page 4) on Chin to teach that c9,t11-conjugated linoleic acid isomer is an active form of conjugated linoleic acid, is insufficient to make up for the deficiency in the combination of Cain and Cook.

We also note the examiner's reliance on Baltes (Answer, page 5), to "teach that employment of low alkali alcoholate as catalysts for isomerization of unconjugated polyethenoid fatty acid compounds to conjugated isomers is known." However, in our opinion, Baltes fails to make up for the deficiency in the combination of Cain and Cook.

Prima facie obviousness based on a combination of references requires that the prior art provide "a reason, suggestion, or motivation to lead an inventor to combine those references." Pro-Mold and Tool Co. v. Great Lakes Plastics Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629 (Fed. Cir. 1996).

> [E]vidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. . . . The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular.

In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (citations omitted). The suggestion to combine prior art references must come from the cited references, not from the application's disclosure. See In re Dow Chemical Co., 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). Based on the foregoing, it is our opinion that the examiner failed to meet his burden of presenting the evidence necessary to support a prima facie case of obviousness. If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

Accordingly, we reverse the rejection of claims 1-6 and 8 under 35 U.S.C. § 103 as being unpatentable over the combination of Cook, Cain, Chin and Baltes.

REVERSED

William F. Smith
Administrative Patent Judge

Donald E. Adams
Administrative Patent Judge

Eric Grimes
Administrative Patent Judge

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